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Personnel



**DEVELOPMENT AND MAINTENANCE OF
INTERACTIVE MULTIMEDIA INSTRUCTION
(IMI)**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFD 36-22, *Military Training*. It establishes responsibilities and procedures for developing and maintaining IMI products for basic military training (BMT), major command (MAJCOM) continuation and qualification training, and resident and nonresident technical training courses, to include IMI for career development courses (CDC). It applies to the InterAmerican Air Force Academy (IAAFA), BMT (737th Training Group), and training groups aligned under Second Air Force (2 AF) involved in managing, developing, and conducting technical and BMT and in developing MAJCOM continuation and qualification training within AETC. Training group commanders are responsible for implementing this instruction at AETC training wings.

Training wings or groups may supplement this instruction to establish specific implementing procedures. Send copies of proposed supplements to the Technical Training Standards and Policy Branch (HQ AETC/DOPV), 1 F Street, Suite 2, Randolph AFB TX 78150-4325, for review and approval prior to publication with an information copy to 2 AF/DOT, 721 Hangar Road, Keesler AFB MS 39534-2804. Submit any recommended changes to this instruction to HQ AETC/DOPV using AF Form 847, **Recommendation for Change of Publication**. Submit requests for waivers to any requirements in this instruction according to guidance in AFI 33-360, Volume 1, *Air Force Content Management Program—Publications*.

This publication does not apply to Air National Guard or Air Force Reserve Command units. Maintain and dispose of records created as a result of prescribed processes in accordance with AFMAN 37-139, *Records Disposition Schedule*. See [Attachment 1](#) for a glossary of references and supporting information used in this publication.

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SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

It updates the term in the title and several other paragraphs from interactive courseware (ICW) to interactive multimedia instruction (IMI) to better describe the various forms of interactive instructional media developed and used for training. It clarifies the purpose of IMI (paragraph 2.); updates the role and responsibilities of the computer programmer (paragraph 5.6.); updates the title and role of the base multimedia center (BMC) personnel (paragraph 5.7.); updates the title of the advanced distributed learning (ADL) coordinator (paragraph 5.8.); updates the process for prioritizing IMI projects (paragraphs 7.1. and 7.2.); adds HQ AETC/DOZA to the coordination process for changes to the *Air Force Institute for Advanced Distributed Learning (AFIADL) Guide for Authors of Interactive Multimedia* (paragraph 9.1.3.); adds requirement to document searches of the Defense Automated Visual Information System (DAVIS) and Defense Instructional Technology Information System (DITIS) databases (paragraph 10.1.1.); adds requirement for the instructional technology unit (ITU) to provide final storyboards developed by contractors to the training manager (TM) (paragraph 10.3.); adds requirement for ITUs to help customers develop a validation plan for IMI (paragraph 10.6.); clarifies responsibilities for contracted IMI development (paragraphs 11.8.2.1. and 11.8.2.2.); incorporates requirements of Section 508 of the Rehabilitation Act of 1998 (paragraph 12.); updates guidance on IMI project reporting (paragraph 13.); updates roles of HQ AETC and training groups relative to new technologies (paragraph 14.); and generally updates office symbols, responsibilities, references, and abbreviations.

1. Definition of IMI:

1.1. IMI is a group of predominantly interactive, electronically delivered training and training support products. Text, audio, video, and graphics are commonly used in IMI products and other digital electronic products used in the delivery of training.

1.2. IMI can be presented as a standalone, self-paced program; an instructor-led presentation; or a program to support on-the-job training. IMI technologies can be used individually or in combination with each other, and they include interactive courseware (ICW), electronic performance support systems, and computer simulation.

1.3. More detailed information on IMI may be found in AFH 36-2235, Volume 5, *Information for Designers of Instructional Systems: Advanced Distributed Learning: Instructional Technology and Distance Learning*, and MIL-HDBK-29612-3A, *Development of Interactive Multimedia Instruction (IMI) (Part 3)*.

2. Purpose:

2.1. IMI can be used to enhance the learning experience. Whether through computer-based instructional programs, web-based training, interactive television technology, or technology insertions to instructor-led training, the proper use of this technology can greatly increase the effectiveness and efficiency of instruction.

2.2. IMI can be used to support traditional resident instruction (technology insertion) or to expand the reach of instruction through distance learning. Technical insertions should be used, when available, to enhance classroom instruction. With the continuous advances of technology, course designers should

make every effort to use technology to illustrate complex, difficult-to-grasp technical concepts to students.

2.3. IMI cannot drive the learning experience; it is simply the way instructional content is transmitted to the learner. The instructional designer must ensure the selected technology complements the established objectives and provides the best instructional solution via a feasibility study (to include a media and cost benefit analysis).

3. Technical Training Management System (TTMS). Where the TTMS is installed and operational, it will be used for all training-related functions to include course development, instructor and student management, resource management, and course evaluation. If available, automated TTMS products will be used. Forms generated electronically by this system may be used in lieu of prescribed forms. Training groups will develop local procedures to assign TTMS responsibilities to instructional technology units (ITU).

4. Primary Responsibility for IMI:

4.1. Each training group will be serviced by a centralized ITU, which is located where it best supports the mission requirements. (See paragraph 5. for ITU staffing requirements.) To ensure quality, standardization, and maximum reuse of training products, ITUs will provide the following: oversight for in-house (ITU and training squadron [TRS]-developed IMI) and contracted analysis, design, development, and maintenance of all resident and nonresident IMI, to include IMI for career development courses (CDC), for training programs administered by their group.

4.2. ITUs will provide the expertise required for the entire life cycle of various forms of interactive instructional media and ensure standardization and quality of IMI development and maintenance.

4.3. Training groups will develop local procedures to ensure all proposed IMI projects, to include TRS-developed IMI, are coordinated with the ITU before development begins.

4.4. A training organization or contractor may develop resident or nonresident IMI, to include IMI for CDCs. Coordinate all IMI developed for CDCs with the Air Force Institute for Advanced Distributed Learning (AFIADL). See paragraph 9. of this instruction for additional CDC IMI requirements. (**EXCEPTION:** Goodfellow AFB is excluded from coordinating classified CDCs and job knowledge development courses [JKDC] with AFIADL.) The requirements in DoDI 1322.20, *Development and Management of Interactive Courseware (ICW) for Military Training*, and AFI 36-2201, *Air Force Training Program*, apply to IMI developed in-house as well as contracted efforts.

5. ITU Staffing. ITUs are staffed with civilian and military personnel and supported by base support units and training squadrons. Contract support may also be part of the ITU team. Descriptions of team personnel are as follows:

5.1. **ITU Chief or Commander.** This person is a supervisory instructional systems specialist with experience in IMI design and development. He or she will develop standards for IMI lessons and/or content, oversees the ITU staff to ensure continuity across lesson and/or content design and delivery, and manages the ITU.

5.2. **Project Manager.** A project manager is assigned for each IMI project. This person directs the overall development process, including coordinating with senior management and support organizations via a project plan or similar type of document. **Attachment 2** contains a sample project plan.

5.3. **IMI Instructional Designer.** This person is an instructional systems specialist with experience in IMI design and development. He or she will develop standards and instructional strategies for IMI lessons and/or content, review products for instructional integrity and conformance with IMI quality standards and strategies, and assist with other courseware and/or content development requirements.

5.4. **Courseware and/or Content Developer.** This person has experience in IMI development and the use of IMI authoring tools. He or she will author lesson and/or content designs, flowcharts, and storyboards; design and/or create static and animated graphics, simulations, and interactive sequences; and program lessons and/or content with authoring systems.

5.5. **Subject Matter Expert (SME).** This person has expertise in the subject matter. While not necessarily assigned to the ITU, he or she will provide information on content subject matter to other members of the team and review IMI products for technical accuracy. The SME is responsible for course content, but the ITU has responsibility for courseware and/or content appearance and functionality to ensure quality and standardization. **NOTE:** Training groups will develop local procedures to ensure adequate SME support for ITUs to ensure established delivery schedules are met.

5.6. **Computer Programmer.** This person supports the courseware and/or content development effort by programming lessons and/or content with authoring systems or programming languages; developing subroutines and writing applications to read or analyze student data files; and developing graphical user interface's (GUI) with various authoring languages.

5.7. **Base Multimedia Center (BMC) Personnel.** These persons (contract, military, or civil service) are from base support units that support courseware multimedia production requirements and, as part of their day-to-day job, use computers to produce routine multimedia products. Military or civil service personnel may not be solely dedicated to multimedia production when multimedia is contracted for the base. Where contract personnel provide base multimedia support, contracts may require amendment to include BMC support of IMI.

5.8. **Advanced Distributed Learning (ADL) Coordinator.** The ITU's ADL coordinator is the central focal point to coordinate job site training (JST) issues with HQ AETC, 2 AF, and training group personnel. AETCI 36-2208, *Job Site Training*, contains guidance on reviewing and selecting courses and/or content having JST potential and ADL coordinator duties and responsibilities.

6. IMI Teams:

6.1. IMI development is accomplished by using a team approach to courseware and/or content development as explained in AFH 36-2235, Volume 5. Teams are normally composed of IMI instructional designers, courseware and/or content developers, and computer programmers from the ITU; SMEs, training managers (TM), and training development element (TDE) instructional systems specialists from TRSs; and multimedia personnel from base support units.

6.2. For CDC IMI development, the CDC author will assist the team as the SME.

6.3. IMI instructional designers are normally project managers (team leaders) because they design the instructional strategy and are responsible for overall product design.

6.4. Teams are formed to accomplish specific IMI projects, and team members may perform more than one function on a team. For example, a courseware and/or content developer may support some of the team's graphic requirements by producing routine, computer-generated multimedia products.

NOTE: Instructional designers, computer programmers, SMEs, and audiovisual personnel may be members of more than one team.

7. IMI Priorities:

7.1. Because IMI development is dependent on the availability of resources, projects must be prioritized. Training groups will develop procedures for establishing local IMI priorities and for handling priorities established by 2 AF and HQ AETC/DO.

7.2. Each fiscal year, HQ AETC/DOZA (in conjunction with HQ AETC/DOO) and 2 AF/DO will prioritize unfunded projects to determine funding requirements. The same procedures used to identify and prioritize courses specified in AETCI 36-2208 will be used.

8. IMI Resources. If the training group has the resources to support new IMI requirements, the IMI may be developed in-house. If the training group cannot support new IMI requirements, TMs should attempt to locate funding for contractor development of IMI. If funding is not available from the training group or wing, TMs will forward IMI funding requests through 2 AF/DO to HQ AETC/DOO. (Paragraph 11. contains additional guidance on the IMI resource process.) ITUs developing MAJCOM continuation and qualification training are funded directly by HQ AETC or the customer MAJCOM.

9. CDC IMI Development:

9.1. Coordination:

9.1.1. The TM or CDC writer will coordinate with the ITU serving their training group before beginning CDC IMI development. This early coordination is essential to ensure quality and standardization of CDC products.

9.1.2. The training wing or group will establish procedures to ensure that plans to incorporate IMI into a CDC are coordinated with AFIADL before working on an interactive CDC. **EXCEPTION:** Goodfellow AFB is excluded from coordinating classified CDCs and JKDCs with AFIADL.

9.1.3. TMs, CDC writers, and ITUs will refer to AFI 36-2201; AETCI 36-2203, *Technical and Basic Military Training Development*; and the *Air Force Institute for Advanced Distributed Learning (AFIADL) Guide for Authors of Interactive Multimedia (IMI Guide)* for additional information on IMI CDCs. AFIADL will coordinate substantial changes to the guide with HQ AETC/DOPV and DOZA before publication and implementation. **NOTE:** This guide is available at <http://www.maxwell.af.mil/au/afiadl/main.htm>.

9.2. **Testing.** The ITUs will provide copies of completed CDC IMI storyboards to the CDC writer who will, in turn, forward them to AFIADL for review. AFIADL will ensure objectives are tested, regardless of the media. AFIADL will continue to develop course examinations in paper-based mode until computer-based testing is proven feasible based on field conditions and compatibility with AFIADL software.

9.3. **Distribution.** ITUs will furnish two master-quality copies of CDC IMI to the CDC writer who will, in turn, forward them to AFIADL for duplication and distribution. **EXCEPTION:** Due to classification requirements, the 17th Training Group, Goodfellow AFB TX, will review, edit, and distribute cryptologic and certain other CDCs and JKDCs and is excluded from coordination with AFIADL.

10. Additional ITU Responsibilities. ITUs will: (**NOTE:** AFH 36-2235, Volume 3, *Information for Designers of Instructional Systems: Application to Acquisition*; Volume 4, *Manager's Guide to New Education and Training Technologies*; Volume 5; and Volume 6, *Information for Designers of Instructional Systems: Guide to Needs Assessment*; contain additional information on ITU responsibilities.)

10.1. After a coordinated decision is made to use IMI, help research, plan, develop, and maintain IMI to meet training requirements. Specifically:

10.1.1. Perform and document searches or help customers perform searches of the Defense Automated Visual Information System (DAVIS) and Defense Instructional Technology Information System (DITIS) databases as required by DoDI 1322.20 and AFI 36-2201. Perform searches after IMI requirements are defined and before IMI is developed or acquired to determine what existing products meet (or can be cost effectively modified to meet) new training needs. Provide inputs to the DAVIS and/or DITIS databases on training group IMI projects as required by DoDI 1322.20.

10.1.2. Recommend the use of commercial off-the-shelf (COTS) courseware when appropriate. Help customers identify and evaluate COTS courseware that might meet their training needs. **NOTE:** Due to intellectual property laws, COTS courseware will not be modified or incorporated into Air Force-developed IMI without first obtaining written permission from the copyright holder or owner of the courseware.

10.1.3. Develop, apply, and enforce quality control measures and standards for all IMI materials developed (in-house and by contractors) for the group or customer. Ensure all IMI programs comply with the standard DoD programming protocols and other technical requirements in MIL-PRF-29612B, *Training Data Products Performance Specification*, and DoDI 1322.20.

10.1.4. Identify and recommend the IMI level that best supports learning requirements, from baseline presentations to high-level simulations, as defined in AFH 36-2235, Volume 5.

10.1.5. Develop IMI in accordance with DoDI 1322.20, MIL-PRF-29612B, MIL-HDBK-29612, and AFH 36-2235, Volume 5, for use in resident, nonresident, and continuation instructional programs. Ensure contractor-developed IMI complies with applicable directives.

10.2. On request, support training squadrons by providing media selection guidance at utilization and training workshops (U&TW) or other training forums. ITUs developing MAJCOM continuation training provide media selection guidance according to MAJCOM agreements.

10.3. Provide life-cycle management and serve as the life-cycle management activity for both in-house and contractor-developed IMI as explained in DoDI 1322.20. Ensure life-cycle availability of the version of the authoring system, assembly language, or higher order language compiler used to develop the courseware; source code for the courseware; accompanying documentation; associated software libraries; and all other materials necessary and sufficient to modify the courseware as outlined in DoDI 1322.20. Provide final storyboards (electronic or paper based) developed by the ITU or contractor to TMs for inclusion in course files to aid TRS personnel in reviewing IMI as part of their annual review of course materials and identifying required changes.

10.4. Revise courseware and/or content as required. When staffing is not available or contractor maintenance is more efficient and funding is available, contractors may be used to maintain IMI. When contractors revise courseware and/or content, ITUs will provide necessary materials and documentation to facilitate revisions.

10.5. Maintain records of the labor hours (divided into time expended on front-end analysis, design, and development for all in-house and contractor-developed courseware and/or content production). Also maintain records of the costs associated with the individual training group's IMI development and maintenance projects. As a minimum, document the estimated number of IMI hours required for the courseware and/or content, estimated completion time, estimated cost, actual number of IMI hours, actual completion time, and actual costs. Also record the time spent on contractor-developed IMI to include, but not be limited to, contract administration, modifications to courseware and/or content, and post-delivery maintenance.

10.6. Help customers develop a validation plan for IMI. Follow the validation guidelines in AETCI 36-2203. Forward a copy of the final validation report to 2 AF/DOT and HQ AETC/DOZA. Maintain a copy with the IMI documentation.

11. IMI Feasibility Analysis and Resource Process: (*NOTE:* ITUs developing MAJCOM continuation training are exempt from paragraphs 11.3.4. through 11.9.)

11.1. The decision to use IMI will be based on a comprehensive, front-end analysis of the total training system requirements. This feasibility analysis will include a media selection and cost-benefit analysis to determine if the use of IMI is an effective and efficient means for training delivery when compared with other potential training media. Training organizations will ensure these analysis is performed, and they will document the results in accordance with DoDD 1322.18, *Military Training*, MIL-PRF-29612B, and MIL-HDBK-29612. *NOTE:* MIL-HDBK-29612 has five parts. See the glossary at [Attachment 1](#) of this instruction for a listing of the various parts.

11.2. TMs or their equivalents for MAJCOM continuation training will ensure the most cost-effective methods are used to satisfy training requirements. They will use internal and external resources, such as TDE instructional systems specialists, SMEs, instructional technology personnel, input from U&TWs or other forums, and users to evaluate their courses and/or content for alternative methods of delivery. Candidate courses, lessons, or units of instruction may be selected during initial development, course reviews, and revisions. AETCI 36-2208 contains guidance on reviewing and selecting courses and/or content having JST potential. A feasibility analysis (to include media selection and cost-benefit analysis) will be performed before each U&TW, if possible. Courses or portions of courses that can accomplish training in a more efficient and economical manner using IMI without sacrificing training quality should be revised to incorporate IMI.

11.3. On request from the TRSs, ITUs will conduct a detailed IMI feasibility study to include a media and cost-benefit analysis. TRS TDEs, TMs, or equivalents for MAJCOM continuation training and SMEs will provide all necessary course documentation to ITUs and help complete the analysis. The ITU will conduct the study in accordance with DoDI 1322.20 and will document results per DoDD 1322.18, MIL-PRF-29612B, and MIL-HDBK-29612. Using guidelines in AFH 36-2235, Volume 5, and contractor development costs associated with current IMI contracts, ITUs will identify required resources for in-house and contractor-developed IMI projects and timelines for development. ITUs will:

11.3.1. Examine all IMI development, new or revised, with future conformance to the shareable content object reference model (SCORM) in mind whenever it is economically feasible to do so. In Executive Order 13111, *Using Technology to Improve Training Opportunities for Federal Government*, January 15, 1999, as amended by Executive Order 13188, *Extension of the Advisory Committee on Expanding Training Opportunities*, January 12, 2001, the President directed DoD

personnel to work with other personnel in government agencies, academia, and private industry to develop a common specification for instructional software that would make interoperability and reuse across federal agencies possible. This new common specification, called the SCORM, provides a foundation for how DoD will use learning and communications technologies to build and operate in the learning environment of the future (AFH 36-2235, Volume 5). However, because the SCORM is still evolving, visit <http://www.adlnet.org> and/or contact 2 AF/DOT to ensure the most current specifications are used. In addition, consult the HQ AETC/DOZA Web site (<http://etraining.aetc.af.mil>) for MAJCOM guidance on developing and implementing SCORM-based products and services.

11.3.2. Use a multimedia approach to conduct a media analysis for each course. A course does not have to be developed entirely as IMI. Instead, a blended approach may be used. Review the content of each lesson objective and select the appropriate media. When more than one media will satisfy the training objective, consider cost, customer requests, and resources available (to include customer hardware). For those courses and/or content having JST potential, refer to AETCI 36-2208.

11.3.3. Factor in development, delivery, and maintenance costs and manpower requirements.

11.3.4. Submit feasibility analysis results to the TM, who will, in turn, submit a recommendation to the TRS commander on incorporating IMI. The decision on whether to develop IMI in-house or use a contractor should be based on the manpower, expertise, available funding, and projected development timelines.

11.4. If the TRS commander decides to pursue development of IMI, TMs will develop a course resource estimate (CRE) to begin resourcing the requirements. The CRE will include feasibility analysis results and identify resources needed for in-house development as well as resources needed if developed by a contractor. It will recommend priorities and whether the project should be accomplished in house or contracted out. Coordinate and process CREs as prescribed in paragraphs 11.5. through 11.7. of this instruction. See AETCI 36-2203 for additional guidance on developing and compiling CREs.

11.5. If the training group has the resources to support new IMI training requirements, the IMI may be developed in-house and the TM will develop the training plan, if required. (See AETCI 36-2203 for guidance on training plans.) If the ITU cannot support new IMI requirements, the TM will attempt to locate funding for IMI development within the training group or wing. If funding is not available from the training group or wing, the TM will forward the CRE to 2 AF/DO.

11.6. Second AF/DO will review the CRE, coordinate any concerns with the training group, and forward the CRE (with 2 AF recommendations) to HQ AETC/DOO.

11.7. The HQ AETC/DOO branch responsible for overseeing applicable training will coordinate the CRE with:

11.7.1. HQ AETC/DOZA to ensure all available technologies are being considered and used.

11.7.2. HQ AETC/DOR, HQ AETC/DOZA, HQ AETC/XPMRT, and 2 AF/DOT on the timing, resources, and priority of the effort. This includes manpower, program objective memorandum (POM), planning, fallout, funding offsets, etc.

11.8. Upon completing CRE coordination in paragraph 11.7. and if the course can be funded, HQ AETC/DOO notifies the TM who proceeds with developing the training plan and the training group begins in-house or contract IMI development, as follows:

11.8.1. For IMI developed in-house, the ITU and training squadron will prepare a project plan (or similar type of document) that identifies project requirements, responsibilities, timelines, and expectations.

11.8.2. For IMI developed by a contractor, the ITU (with assistance from the TRS) will prepare contract work documents (statements of work [SOW], statements of objective [SOO], or other documents required by the applicable contract office) and perform quality assurance reviews of contractor-developed IMI according to MIL-PRF-29612B, MIL-HDBK-29612, AFI 36-2201, and AFH 36-2235, Volume 3.

11.8.2.1. For locally funded contract efforts, the ITU will perform contractor officer representative (COR) functions required by the contracting officer and develop and enforce quality control measures and standards.

11.8.2.2. For centralized AETC-funded technical training contracted efforts, HQ AETC/DOZA will perform COR duties, work directly with the contracting office, and coordinate with 2 AF/DOT, the TM, and the appropriate ITU on management and oversight of contracted projects. The appropriate ITU will provide quality assurance support during and after development.

11.9. HQ AETC/DOO will work with HQ AETC/DOZA and 2 AF/DO to prepare inputs to HQ AETC/DOR for POM submissions.

12. Section 508 of the Rehabilitation Act of 1998. All courseware and/or content acquired or developed will comply with Section 508 of the Rehabilitation Act. HQ AETC/DOZA is the MAJCOM point of contact for Section 508 requirements, issues, and sources for assessing compliance.

12.1. Under Section 508 of the Rehabilitation Act, agencies must provide access to electronic and information technology to employees and members of the public with disabilities that is comparable to the access available to employees and members of the public who are not individuals with disabilities. The law applies to all federal agencies that develop, procure, maintain, or use electronic and information technology. Section 508 was enacted to eliminate barriers in information technology, make available new opportunities for people with disabilities, and encourage development of technologies that will help achieve these goals.

12.2. Under this act, specific impairments include hearing, visual, mobility or manipulation, and cognitive. Specific technologies include:

12.2.1. Software or operating systems. One provision requires alternative keyboard navigation for people who cannot rely on pointing devices.

12.2.2. Web-based intranet and Internet information and applications. The act requires labeling of graphics so they can be converted into audio files or Braille presentations.

12.2.3. Telecommunications products, including the use of text telephone (TTY) or other assistive listening devices.

12.2.4. Video or multimedia products. The act has provisions that address the use of caption decoders and audio description.

12.2.5. Self-contained, closed products such as kiosks, information transaction machines, copiers, etc., must have accessibility built in so users do not need to attach assistive devices.

12.2.6. Desktop and portable computers. The focus is on keyboards, other mechanically operated controls, touch screens, biometric forms of identification, ports, and connectors.

12.3. Scrutinize new acquisitions and development to determine whether the target audience can be reasonably expected to contain users with vision, hearing, manipulation or mobility, or cognitive impairments.

12.3.1. Evaluate content modules individually because they may be subject to reuse under the SCORM model. Individuals with disabilities who are members of the public may generate requests for information or services that are comparable to those provided to individuals with no disabilities.

12.3.2. Document possible accommodation strategies and keep them with the course folder.

12.4. In-house developers should make every effort to accommodate the provisions of Section 508, but should not incur significant cost increases to do so. The key objective is accommodation, but it is an unfunded requirement. If accommodation would place an undue burden on the federal agency (because of significant difficulty or cost increases), the burden must be identified and documented. Undue burden refers to 30 percent or higher increases in development time or costs. Where undue burden can be shown, the originating agency will provide HQ AETC/DOZA with appropriate documentation for the AETC Chief Information Officer (CIO) to include into the semiannual report on Section 508 activities.

13. Progress Report on Projects:

13.1. Each fiscal year quarter, training groups will report the progress of all projects on the Project Status Report (RCS: AETC-DOP[Q]0401) in the format provided by 2 AF/DO. Training groups will forward copies of the report (via e-mail, if possible) to 2 AF/DOTT no later than 15 days following each quarter (for example, 15 April for the January through March quarter). Second AF/DO personnel will address and coordinate changes, as needed, and forward them to HQ AETC/DOO and HQ AETC/DOZ within 30 days of receipt.

13.2. Training group personnel preparing the report will also provide TMs a quarterly update on courses they manage. Quarterly updates should include a description of progress for ongoing development or conversion efforts under the remarks column. Extracts from the quarterly report will be e-mailed to the applicable TMs.

14. New Technology. Training technology planning is the responsibility of HQ AETC.

14.1. HQ AETC's Role:

14.1.1. HQ AETC/DOZ and HQ AETC/XPERT explore technologies to satisfy long-range objectives by searching and experimenting with new and evolving products and concepts. This includes evaluating specific authoring systems, courseware management systems, delivery concepts, software products, and hardware for their potential application in technical training and BMT to meet the evolving needs of the training groups.

14.1.2. HQ AETC/XPRT manages the Education and Training Technology Application Program (ETTAP) which can also be used to test new and innovative technology implementation. (See AETCI 36-2218, *Education and Training Technology Application Program*.) When technology is identified through ETTAP for broader application throughout AETC, HQ AETC/XPRT will coordinate with HQ AETC/DOZA, HQ AETC/DOP, and HQ AETC/DOO to integrate it into training. **NOTE:** Suggestions for command use of ETTAP technologies will be coordinated through 2 AF/LR to HQ AETC/XPRT with information copies to HQ AETC/DOZA, HQ AETC/DOP, HQ AETC/DOO, and HQ AETC/SCXX.

14.2. Training Groups' Role:

14.2.1. Training groups and ITUs explore and implement short-term technology solutions related to development and delivery of IMI products to satisfy immediate customer needs. Training groups interested in exploring or testing new training technologies or software having long-range application within technical training or BMT must notify HQ AETC/DOZA through 2 AF/DO, in writing, before beginning any technology exploration to prevent duplication of effort and unnecessary expenditure of funds. They will send information copies of this notification to HQ AETC/XPRT, HQ AETC/DOP, HQ AETC/DOO, and HQ AETC/SCXX.

14.2.2. Personnel assigned to ITUs should keep abreast of new training technologies by attending conferences, reading literature, and receiving training. They should know the advantages and disadvantages of each technology, how these technologies apply in their training arena, and when these technologies will be fielded. They must also keep abreast of changes in instructional design applications to ensure development of effective IMI.

14.2.3. ITUs are encouraged to participate in BETA testing of COTS products in order to increase the probability of COTS products meeting Air Force and DoD needs.

15. Manpower Standards. HQ AETC/XPM will develop manpower standards for the development, delivery, and maintenance of IMI.

16. Forms Adopted. AF Form 847, **Recommendation for Change of Publication.**

WILLIAM M. FRASER III, Major General, USAF
Director of Operations

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

Executive Order 13111, *Using Technology to Improve Training Opportunities for Federal Government Employees*, January 15, 1999 (amended by Executive Order 13188, *Extension of the Advisory Committee on Expanding Training Opportunities*, January 12, 2001)

DoDD 1322.18, *Military Training*, January 9, 1987

DoDI 1322.20, *Development and Management of Interactive Courseware (ICW) for Military Training*, March 14, 1991

MIL-PRF-29612B, *Training Data Products Performance Specification*

MIL-HDBK-29612, as follows:

MIL-HDBK-29612-1A, *Guidance for Acquisition of Training Data Products and Services (Part 1)*

MIL-HDBK-29612-2A, *Instructional Systems Development/Systems Approach to Training and Education (Part 2)*

MIL-HDBK-29612-3A, *Development of Interactive Multimedia Instruction (IMI) (Part 3)*

MIL-HDBK-29612-4A, *Glossary for Training (Part 4)*

MIL-HDBK-29612-5, *Advanced Distributed Learning (ADL) Products and Systems (Part 5)*

AFI 33-360, Volume 1, *Air Force Content Management Program—Publications*

AFPD 36-22, *Military Training*

AFI 36-2201, *Air Force Training Program*

AFH 36-2235, Volume 3, *Information for Designers of Instructional Systems: Application to Acquisition*

AFH 36-2235, Volume 4, *Information for Designers of Instructional Systems: Manager's Guide to New Education and Training Technologies*

AFH 36-2235, Volume 5, *Information for Designers of Instructional Systems: Advanced Distributed Learning: (ADL) Instructional Technology and Distance Learning*

AFH 36-2235, Volume 6, *Information for Designers of Instructional Systems: Guide to Needs Assessment*

AFMAN 37-139, *Records Disposition Schedule*

Air Force Institute for Advance Distributed Learning (AFIADL) Guide for Authors of Interactive Multimedia (IMI Guide), which is available at <http://www.maxwell.af.mil/au/afiadl/main.htm>

AETCI 36-2203, *Technical and Basic Military Training Development*

AETCI 36-2208, *Job Site Training*

AETCI 36-2218, *Education and Training Technology Application Program*

Abbreviations and Acronyms

ADL—advanced distributed learning
AFIADL—Air Force Institute for Advanced Distributed Learning
ASCII—American standard code for information interchange
BMC—base multimedia center
BMT—basic military training
CDC—career development course
COR—contractor officer representative
COTS—commercial off-the-shelf
CRE—course resource estimate
DAVIS—Defense Automated Visual Information System
DITIS—Defense Instructional Technology Information System
ETTAP—Education and Training Technology Application Program
IAAFA—InterAmerican Air Force Academy
ICW—interactive courseware
IMI—interactive multimedia instruction
ISD—instructional systems development
ITU—instructional technology unit
JKDC—job knowledge development course
JST—job site training
MAJCOM—major command
POM—program objective memorandum
SCORM—shareable content object reference model
SME—subject matter expert
TDE—training development element
TM—training manager
TRS—training squadron
TTMS—Technical Training Management System
U&TW—utilization and training workshop

Attachment 2

SAMPLE PROJECT PLAN

NOTE: The project plan below is just a sample. Change items as necessary to reflect an actual agreement.

This plan constitutes an understanding between the signed parties to work toward the most effective and efficient use of resources for completing IMI development and maintenance.

Course Supervisors/SMEs will:	Training Management will:	The ITU will:
Discuss material to determine if the request can be supported and whether IMI is appropriate.	Review initial request for IMI to ensure compliance with the ISD and designate a customer representative.	Determine whether the request for IMI development can be supported.
Assist in the completion of the feasibility study. Provide a request memorandum to the ITU, signed by the squadron commander, appointing a SME, unless the SME is appointed through other means. The SME must have the authority to make decisions regarding course development and content. The SME must be knowledgeable, reliable, and available during lesson design.	Attend course meetings with course and IMI personnel.	Assist in deciding whether IMI is an appropriate medium, using applicable ISD guidance and other material, as needed.
Provide all lesson materials. Review the proposed lesson content with ITU representatives to ensure cost-effective support of objectives. Meet milestones jointly set by ITU and course personnel for lesson development. Identify any changes in advance to the ITU. Provide the ITU a disk copy of current, complete, and grammatically correct text in ASCII or Microsoft™ Word format for each objective. Work with ITU to develop storyboards for production of lessons. Review storyboards, indicating approval for use in courseware development.	Review and approve proposed and completed IMI storyboards and lesson materials. Review final lesson to verify lesson is ready for validation.	Provide assistance to course personnel in obtaining lesson materials and text on formatted diskette. Design and develop the methods, set and meet milestones required to produce the final product. Identify any changes in advance to TRS. Work with course personnel to storyboard the lesson. Program and edit the lesson when the storyboards are completed, reviewed, and approved.

Course Supervisors/SMEs will:	Training Management will:	The ITU will:
Review and validate the lesson according to established procedures.	Assist with course validation analysis. Coordinate on changes to IMI lessons, ensuring team members are kept aware of all changes affecting IMI.	Make corrections as needed throughout the validation phase. Ensure the project folder and all documentation are completed and copies provided to applicable personnel. Maintain a list of current IMI.
Review the lessons at least annually. Submit requests for changes as required.	Develop and maintain annual review procedures pertaining to IMI.	Complete or assist in completing revisions and documentation, as required. Determine if requested revision constitutes new development.

 Squadron Commander/Date

 Training Manager/Date

 ITU Chief or Commander/Date